

PATENT SPECIFICATION

NO DRAWINGS

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COMPLETE SPECIFICATION

Instant Solid Dessert and Dessert Dry Mix

- I, JOSEPH R. EHRLICH, of 1793 Riverside Drive, New York, State of New York, United States of America, a citizen of the United States of America, do hereby declare
- 5 the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—
- 10 The objectives of this invention are instant solid desserts, such as cakes, cookies, "brownies", and dry-mixes for preparing same without the need of baking.
- The solid desserts of this invention are
- 15 prepared from a dry-mix which may be packed in one or be divided into several proportioned packages, each containing one or more components of the total mixture, and requiring only mixing with water and transferring into a mold. Without any baking the solid dessert, such as a cake is ready to be eaten within a few minutes.
- 20 Pre-mixed cake and cookie mixtures are known. Generally, water or milk or fat or eggs have to be added, and, after mixing, the entire blend is poured into a mold and has to be baked. Sometimes the mixture consists of several packages, e.g. one containing flour, fat, sugar, baking powder,
- 25 flavoring agents and other ingredients, whereas a separate package may contain dry egg white which has to be dissolved in water and whipped before combining it with the content of the other package or packages.
- 30 There are other variations too, but all have the one thing in common that they have to be baked at elevated temperature, customarily between 200°F—450°F for a certain period of time which may vary in general
- 35 from 20 to 60 minutes. Desserts made with such pre-proportioned mixtures are considered to be "home-made".
- A housewife can also have a quick solid dessert by simply defrosting or perhaps quick heating a frozen dessert. A frozen dessert,
- 40 however, is not different from a fresh, bakery-made dessert, except that it has longer shelf-life and can be preserved as long as it is kept in the frozen state. This type is not a "home-made" dessert.
- 45 My new dessert mix has obvious advantages over the hitherto known dessert- and cake-mixes as well as over frozen desserts. My dessert mixes have a long shelf-life without any refrigeration. The preparation of the desserts takes only a few minutes, and in general they are ready to be eaten without baking or chilling. Furthermore, my dessert mixture may be a completely preproportioned mixture of a definite kind, e.g. a chocolate cake or a moccachino cake, or it may be a general cake base or cookie base containing dough, sugar and whatever else is necessary to which, as desired, other dessert nutrients, such as cocoa, chocolate chips, milk powder, nuts, dates, raisins, and flavoring agents may be added, thus permitting a housewife to make an instant cake without baking and give her a last minute choice which will determine what kind of cake it will be.
- 50
- 55 The dessert mix can be kept in paper boxes, plastic bags or pouches or any suitable wrapping.
- 60 The new mix consists of comminuted pre-baked dough, preferably but not necessarily of various and graded particle sizes. The pre-baked dough particles might but by no means have to be, partly or fully dehydrated. To these dough particles is added and thoroughly intermixed with them a small amount of finely powdered or granulated edible, dry hydrophilic colloid as a binder. The amount of binder may be less than 1%, e.g. 0.8%, or more, e.g. 3.6% of the weight of the finished dessert or about 1% to 10% of the dry mix, depending on the nature of the binder.
- 65
- 70 As binder can be used natural or synthetic gums, proteins, carbohydrates, their respec-
- 75
- 80
- 85

[Price]

- tive derivatives, such as gelatin, pectin, algin, acacia, guar flour, karaya, carboxy, methyl starch, Irish moss, locust bean gum, methylcellulose, CMC starch (a blend of CMC and starch), egg albumen, milk protein, or mixtures thereof.
- The pre-baked dough can be bread crumbs, cracker crumbs, comminuted dry or fresh sponge cake, tea biscuit dough, etc.
- 10 The amount of water to be added is about 1 g. for every 4—5 g. dry mix if the same contains air-dried but not dehydrated pre-baked dough particles.
- If I divide the packages, I prefer to pack the binder not with the pre-baked dough, but separately, or together with flavoring and/or sweetening agents and to dissolve this portion separately in water which may be cold, warm or hot, depending on the binder. The mix may contain sugar and other additives as the examples will show more clearly.
- To prepare the dessert, the dry mixture is put into a mixing bowl, and a measured amount of water is poured over the mix containing the binder or the water with the dissolved binder in it, is added to the dry-mix and the entire blend is thoroughly mixed with a spoon or with a mechanical mixer. The dry-mix absorbs the liquid immediately forming a crumbly, slightly moist or even apparently dry mass, which is transferred into a mold which can be made of glass, metal, plastic, waterproof cardboard, etc. To facilitate the removal of the dessert the mold may be lubricated with fat or oil. As the mass is not being baked it does hardly stick to the mold and the dessert can also be removed without mold lubrication, just by loosening it with a knife. The crumbly mass in the mold is covered with wax paper or plastic foil, etc. and slightly compressed by hand. The paper is removed and the mass is left alone for 3 to 10 minutes to set, whereupon it can be removed from the mold as one solid, finished piece which can e.g. be cut into portions and is ready to be eaten.
- This is a new approach of reconstituting, not preparing from smaller particles, a food, while simultaneously transforming it. It should not be confused with the reconstitution of dehydrated food by adding water. The new dessert mix, to begin with starts out with food particles which do not have to be dehydrated. A freshly baked cracker or tea biscuit is crisp but is not dehydrated, is still capable of absorbing water, if sufficient water is supplied, cracker crumbs are an important base ingredient for my invention. But in contrast to the reconstitution of dehydrated food with the help of water, the reconstituting element here is the small amount of binder, not the water. The water primarily serves to activate the binder. However, the most significant difference in this reconstitu-
- tion process is that the final product is different in taste and appearance and character from the base material from which it is made and that this is achieved without baking. Bread or dough, soaked in water, or milk, or even dry crumbs are sometimes added to dough as a minor component for making dessert, but not as the main base and not without baking or cooking and application of heat. For example, according to this invention cracker crumbs may be transformed into a nut cake or lemon cake or chocolate cake. The pre-baked dough particles are the main part of the mixture. Sugar and other ingredients help, together with the binder to build up from prepared food particles of one nature a solid food product of an entirely different character. The dessert nutrients which are added to the base consisting of pre-baked dough particles, together with flavoring and sweetening agents completely cover and change the taste of the pre-baked dough, and together with the binder and water, also the character of the dessert.
- The binder particles might completely dissolve, then gel, then set or they might merely swell and set or just get sufficiently tacky to hold other, non-tacky particles together. The degree of compression, the different sides of the particles and the amount of water might make the dessert more or less fluffy or compact. All this makes this kind of dessert also different from half-solid desserts such as puddings or jellies which depend on the gelling of a small quantity of gellable material in a large quantity of water. In a jelly normally 1—2 parts of a solid gelling agent is dissolved in more than 90 parts of water. The formation of such jellies requires chilling and considerable time. In my desserts about 20% of water or less and seldom slightly more are being used to wet about 80% or more solids to form a crumbly mass where gelling, though not noticeable might occur but is by no means necessary. The forming of my desserts requires a certain amount of mechanical compression.
- EXAMPLES**
1. Chocolate Cake
- | | |
|-----------|----------------------------------|
| parts | 115 |
| p. weight | |
| 26.7 | air-dried, shredded sponge cake |
| 13.3 | crushed, baked tea-biscuit dough |
| 52.0 | Graham cracker crumbs |
| 8.0 | cocoa |
-
- 100.0 are thoroughly mixed. This mix forms Portion I. Portion II consists of:
- | | |
|--------|--------------------------------------|
| p.p.w. | 120 |
| 1.47 | granulated gelatin, Gel strength 200 |
| | Bloom grams |
| .30 | vanillin |
| 36.00 | granulated sugar |

	A Bloom gram is the weight in grams required to depress a plunger having a one sq. cm. surface four mms. deep into a gelatin solution of 6.66%, the test being performed	For using the cake base to make a variety of different cakes one can proceed e.g. as follows:
5	when the solution has been tempered in a controlled bath at 10°C for 17 hours.	To portion I may be added either
	Portion II is dissolved in 22.7 p.p.w. of hot water (70°—80°C).	p.p.w. 65
10	Portion I is placed into a mixing bowl, the solution, containing Portion II, is poured over Portion I and the entire mass is thoroughly mixed. The mix forms a crumbly slightly moist mass which is fitted into a cake mold and slightly compressed by hand.	29 chopped hazelnuts
15	After having remained for 5 minutes in the mold at room temperature of 70°F—75°F, the finished chocolate cake can be removed from the cake mold.	or 29 chopped walnuts
	2. Mocca Cake:	or 29 chopped almonds
20	p.p.w.	or 29 mixture of dried raisins and pecans and dash of cinnamon
	25.3 finely shredded sponge cake, fresh or air-dried	70
	41.3 Graham cracker crumbs	or 29 chocolate chips
25	1.5 finest powdered gelatin (300—325 mesh) 225 Bloom grams	or 29 mixture of chopped figs, nuts, dates and chocolate
	.2 vanillin	or 29 ground chocolate, etc.
	1.2 instant coffee	Portion II is dissolved in 21.5 p.p.w. warm water (55°—60°C) and added to the enriched Portion I with thorough mixing. Forming and setting of the cake as described in EXAMPLE 1.
	30.5 powdered sugar (confectionery grade)	The sponge cake in the previous and following examples can be a baked dough made in accordance with procedures which are well known to the art, and using e.g. 80
30	100.0 are thoroughly mixed and placed into a mixing bowl.	p.p.w.
	16.5 p.p.w. hot water 70°—80°C or 19 p.p.w. warm water (50°C) or 26 p.p.w. cold water are poured over the blend and thoroughly mixed until the mass has a uniform brown color. The crumbly mass is transferred into a mold, covered with a piece of wax paper, slightly compressed and left alone. After 3 to 4 minutes the cake is set so that it can be cut into portions, or can be filled with jam, marmalade, etc. and/or can be covered with an icing. Depending on whether the water was cold, warm or hot, and furthermore, depending on the amount of water and pressure applied, a soft fluffy or dry and fluffy or more compact cake may result. When granulated sugar is used in place of powdered sugar, and cold water is added, a slightly crunchy effect might be obtained because of incomplete dissolution of sugar.	13.9 fresh egg yolk, beaten
35	40	25.2 fresh egg white, beaten
	45	30.6 sugar
50	50	28.6 sifted flour
		.2 salt
		.8 vanilla extract
		.6 baking powder
		To the dough may or may not be added preservatives. In the egg yolk may be dissolved antioxidants such as e.g. 0.05 p of a mixture consisting of 95
		p.p.w.
		20 butylated hydroxyanisole
		6 propylgallate
		4 citric acid
		70 propylene glycol
		In the egg white may be dissolved e.g. 0.1 p of sodium benzoate.
		Another dough which may serve as the basic ingredient of the cake base is known as "angel food cake" and may consist of 105
		p.p.w.
		26 flour
		39 sugar
		35 egg white
		Baking powder, lemon juice, vanilla and salt are added in very small amounts, similar to that in the previous example. The dough is again prepared and baked in a way well known to the art, and, therefore, no further description will be necessary.
		110
		115
3.	Cake Base	
	Portion I	
	p.p.w.	
55	65.5 air-dried shredded sponge cake	47 shredded and oven-dried sponge cake or angel food cake
	34.5 granulated sugar	34 sugar powder, confectionery grade
	100.0	8 cocoa
	Portion II.	7 chopped nuts
	p.p.w.	.4 vanillin
60	1.75 granulated gelatin 200 Bloom grams	3.6 Locust bean flour
	.25 vanillin	120

- To this mixture are added 26 p.p.w. cold water under agitation until all particles are uniformly wetted. The mass is pressed into a rectangular mold. Under the pressure the individual particles appear to fuse together and form the cake without further delay. The cake can be removed immediately and can be cut into square portions or, if desired, can first be covered with a chocolate icing.
5. Nut Cake:
- p.p.w.
- | | |
|------|---------------------------------|
| 46.8 | baked and shredded dough |
| 22.0 | ground nuts |
| 15 | 25.3 sugar, confectionery grade |
| | 2.1 milk protein |
| | 1.7 gelatin 175 Bloom grams |
| | .1 disodium phosphate |
| | .2 oleicacidmonoglyceride |
| 20 | 1.8 vanillin |
- are thoroughly mixed; to this are added 16 p.p.w. of cold tap water under mixing until all the water appears to be absorbed. The mass is compressed in a mold and put in a refrigerator for 5 to 10 minutes, then removed from the mold. The mass has been transformed into a solid nut cake which keeps its texture and consistency at room temperature.
- 25
30. 6. Banana Cake:
- p.p.w.
- | | |
|------|---|
| 63.2 | air-dried shredded sponge cake 8% moisture content |
| | 2.0 dry skim milk powder |
| 35 | 30.0 confectionery sugar |
| | 4.5 hydroxisopropyl methyl cellulose ether 4000 cps |
| | .3 vanillin |
| | .05 powdered banana flavor |
- 40 are very thoroughly mixed. To this are added 26 p.p.w. cold water; the mass is thoroughly mixed, transferred to a mold and strongly compressed by hand. After 5 minutes the cake is removed from the mold and allowed 45 another five minutes to set, before cutting. It also may be filled with jam and covered with an icing.
- In place of the hydroxy isopropyl methyl cellulose CMC can be used.
- 50 7. Chocolate Cake:
- p.p.w.
- | | |
|--------|---|
| 69 | freshly baked and shredded sponge cake having 32.56% moisture |
| 55 | .27 finely powdered sugar |
| | 6 cocoa |
| | thoroughly mixed |
| p.p.w. | 1.1 gelatin 225 Bloom grams dissolved in 16 p.p.w. hot water |
| 60 | .2 vanillin |
- The solution is added to the dry mix, thoroughly mixed and the mass transferred into a cake mold, and slightly compressed. After 5 minutes a fluffy soft cake can be removed from the mold.
8. Lemon Cookies:
- p.p.w.
- | | |
|--------|---|
| 72 | comminuted oven-dried angel food cake moisture content 6.8% |
| 30 | sugar powder |
| | .03 lemon flavor in powder form (spray dried lemon juice) |
| | .40 vanillin |
| | are thoroughly mixed. |
| p.p.w. | 28 warm water |
| | 0.9 low methoxyl pectin, dissolved in the water |
- are added, mixed and strongly compressed in small molds. After 10 minutes the cookies are removed and decorated with apricot jam or marmalade.
- It should be clearly understood that the preceding examples are only given for a better understanding of the basic concept of the invention which by no means is limited to those examples. In place of the binders described in the examples, other edible binders can be used, such as those listed earlier, and a great variety of other formulations is possible using other types than described of comminuted baked dough and cake meals including baked matzo meal and other types of nutrients and/or flavoring agents. Likewise, edible dyestuffs might be added. To achieve early removal of cakes which are only slightly compressed binders with gelling properties are preferable. For extra long shelf-life of the dry mixtures baked goods made without fat are preferred.
- The new dessert mixes lend themselves also eminently for toy purposes, because children can safely prepare edible toy cakes without baking, and therefore without coming near an oven.
- WHAT I CLAIM IS:—
1. For the purpose of making without baking a ready-to-use, baked instant solid dessert with a cake-like texture and porosity; a dry blend having a long shelf-life, comprising as a major ingredient fine baked dough particles, at least one edible binder which is activatable with water, at least one self-contained additive capable of covering the flavor of said baked dough particles, said additive not being incorporated in said baked dough particles, said baked dough particles, said additive and said binder being mixed in such pre-determined proportions that said mix is capable of forming with a pre-determined amount of water a freely-moving mass, said freely-moving mass being adap-

- ted to be molded by hand pressure into a ready-to-eat solid dessert having cake-like texture and porosity, being soft, resilient, moist, fluffy, without being crumbly, and having a freshly-baked taste, and being sufficiently coherent to be cut into portions. 35
- 5 2. A dry mix as claimed in Claim 1, wherein the dry blend includes fine sugar particles and said sugar particles are mixed with said dough particles, said additive and said binder to form said freely moving mass.
- 10 3. A dry mix as claimed in Claim 1 or 2, wherein said binder is an edible hydrophilic colloid.
- 15 4. A solid dessert product made from a dry mix according to Claim 1, 2 or 3.
- 5 5. A process for the instant preparation of solid desserts having a cake-like texture, wherein a substantially powdery dry mix consisting of
- 20 (a) as a major portion pre-baked, small dough particles,
- (b) an edible binder in dry and substantially powdery form, and
- 25 (c) a flavoring agent in sufficient quantity to cover and change the taste of the pre-baked dough particles is mixed with water until a crumbly mass is formed, whereupon the moist mass is transferred into a cake mold and a pressure is exerted onto the exposed surface of the mass which is sufficient to hold the constituents together in such a
- way that they form a solid dessert in such a form that the same can be removed from the mold immediately without baking, chilling or gelling, and which is immediately ready to be eaten and which has a texture of a freshly baked cake which can be cut into pieces without crumbling. 40
6. A process according to Claim 5, wherein in the binder is a hydrocolloid.
7. A process according to Claim 5 or 6, wherein the dry mix contains sugar in powdery or granulated form. 45
8. A process according to any of Claims 5 to 7, wherein an amount of water is added to the dry mix which, together with the moisture contained in said dry mix, is sufficient to give the unbaked dessert the character of a freshly baked cake.
9. A dry mix for the quick preparation of solid desserts without baking substantially as described herein. 50
10. A solid dessert product made from a dry mix substantially as described herein. 55
11. A process for quick preparation of solid desserts without baking substantially as described herein.

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